WHAT IS CLAIMED IS:

1. A method of estimation and segmentation of the volume of a three-dimensional object, a contour of the object being known by means of a plurality of films taken in section, comprising the steps:

(a) define a given number of base points constituting a first three-dimensional shape defined by facets whose vertices are the base points;

(b) each facet of the first shape being defined by three segments and each segment being common to two adjacent facets, the segments are divided by creating second rank points adapted to the contour of the object, so as to constitute a second three-dimensional shape closer to the contour of the object than the first shape, the creation of a second rank point resulting in the creation of two new facets and three new segments;

(c) each segment is iteratively divided into subsegments adjusted by defining third rank points adapted to the contour of the object, so as to constitute a third three-dimensional shape closer to the contour of the object than the second shape, the creation of a third rank point resulting in the creation of two new facets and three new segments; and

(d) then, the volume of the third three-dimensional shape is calculated.

2. The method according to claim 1, wherein the films are taken along parallel sections.

3. The method according to claim 1, wherein a plurality of ~~films is treated to supply~~ images provides a description of the three-dimensional volume.

4. The method according to claim 1, wherein each segment is divided in two.

5. The method according to claim 2, wherein each segment is divided in two.

6. The method according to claim 3, wherein each segment is divided in two.

7. The method according to claim 1, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

8. The method according to claim 2, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

9. The method according to claim 3, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

10. The method according to claim 4, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

11. The method according to claim 5, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

12. The method according to claim 6, wherein the position of each second point is proposed to the operator as a function of the position of the first two adjacent points.

13. The method according to claim 7, wherein the position of each second point is proposed as a function of the orientation of the perpendiculars to the first two adjacent points.

14. The method according to claim 1, wherein the segments are divided into subsegments until the change of volume resulting from a given division is negligible.

15. The method according to claim 1, wherein six first base points are defined.

16. The method according to claim 1, wherein the distribution of density of the object in space is calculated.

17. The method according to claim 1, wherein any point of the three-dimensional shapes can be modified.

18. The method according to claim 1, wherein any of the points are defined manually.